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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,690

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Sung-Ho Choi

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EXAMINER

AFSHAR, KAMRAN

ART UNIT

PAPER NUMBER

2617

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,690	<b>Applicant(s)</b> CHOI ET AL.	
	<b>Examiner</b> KAMRAN AFSHAR	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/03/05, 12/20/07 &amp; 1/15/08</u> .                        | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

3. The disclosure is objected to because of the following informalities:  
CFR 1.78(a) (iii) requires the sentence in any non-provisional application (iii) If the later-filed application is a nonprovisional application, the reference required by this paragraph must be included in an application data sheet (§ 1.76 <apprx 1 76.htm>), or the specification must contain or be amended to contain such reference in the first sentence(s) following the title.  
Appropriate correction is required.

***Claim Objections***

4. Claims 1-38 are objected to because of the following informalities:
5. Claims 1-38, recite " MBMS,SGSN RNC, SCCP, SRNC, RANAP, GGSN, RAB" in the abbreviation form throughout the claims 1-38 that they should be clearly defined at least once in the claims.
6. Claims 7, 15, recite "(607, 707, 807)" which should be either clearly defined or deleted (i.e. which steps "(607, 707, 807)" referring to?).
7. Claims 10, 26, recite "this step can be omitted" which should be deleted from the claim language.
8. Claims 1, 10, 18, 26 recite in line 1,"signaling bearer" which should be changed to "a shared signaling bearer".
9. Claims 18 step c second occurrence of "a SCCP Connection Request" should be changed to "the SCCP Connection Request message" and in any other dependent claims.
10. Claim 10, step c and claim 26 step b second occurrence of "a SCCP Connection Confirmation message" should be changed to "the SCCP Connection Confirmation message" and in any other dependent claims.

Appropriate correction is required.

***Allowable Subject Matter***

11. Upon proper overcome of the objection as discussed above in items 1-10, Claims 1-38 will be allowed.

The following is an examiner's statement of reasons for allowance: 1-38.

With respect to claim 1, Srkkinen (U.S. Pub.: 2004/0102212 A1) is the closest art to the application invention. However due to failure of the date could not be used.

3GPP TSG-RAN WG2 #32 teaches discussion with respect to feasibility of sharing sharing Lu signal connections, and the name of messages: i.e. MBMS notification, MBMS Service Request, MBMS RAB Request, etc. (See e.g. Pages 1-2).

Ahmavaara (U.S. Pub. No.: 2003/0169275 A1) teaches the interface between the SGSN nodes and the core network and the radio access network may be provided by a so called Lu interface (See Page 3, ¶ 0023]). And perform an intersystem change and more particularly, the RNC controlling the connections, initiates a SRNC (serving RNC) relocation procedure for the circuit switched (CS) and packet switched (PS) connections by sending appropriate relocation request messages to the MSC node (See Page 4, ¶ [0039]).

The Admitted Prior Art (APR) teaches MBMS system architecture and signaling establishment and release of existing Lu interface between the MBMS nodes i.e. RNC, GGSN, SGSN, and GGSN (See APA e.g. Pages 1-3 of Applicant's specification, Figs. 1-2).

Verma (U.S. Pub. No.: 2005/015/0157673 A1) teaches Interfacing a WLAN with a mobile communication (See Page 1, ¶ [0006]).

However, the prior art of record fails to disclose singly or in combination to render obvious that the method comprising the steps of: (a) RNC receives a MBMS Notification message for a certain MBMS service from SGSN; (b) RNC constructs a MBMS Service Request message according to the contents of the notification; (c) RNC sends a SCCP Connection Request message to SGSN, requests to establish a SCCF signaling connection, and then waits for a reply; (d) RNC receives a SCCP Connection Confirmation message from SGSN, which indicates the success of the Lu signaling connection establishment used for this service.

With respect to claim 10,, the prior art of record fails to disclose singly or in combination to render obvious that the method include the following steps: (a) SGSN sends a MBMS Notification message

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to Radio Network Controller (RNC) after receiving the data sent from GGSN, notifies of relevant MBMS service information, and then waits for the response message from RNC; (b) after receiving a SCCP Connection Request message from RNC, SGSN separates the RANAP message included in the data fields and saves the lu signaling connection ID allocated by RNC for this service, allocates the identifier of the signaling connection in SGSN, and constructs a SCCP Connection Confirmation message and a MBMS RAB Assignment Request message; (c) SGSN sends a SCCP Connection Confirmation message to RNC; (d) SGSN sends a MBMS RAB Assignment Request message to RNC via the shared lu connection established, if the MBMS RAB Assignment Request message is included in the data field of the SCCP Connection Confirmation message.

With respect to claim 18,, the prior art of record fails to disclose singly or in combination to render obvious that the method, comprising the steps of: (a) SGSN receives MBMS data from GGSN; (b) SGSN analyzes the on-going service, if there is no shared UE connection used for this service, it organizes a SCCP Connection Request message, which include a MBMS RAB Assignment Request message in its data field; (c) SGSN sends a SCCP Connection Request to ,RNC, requests to establish SCCP signaling connection, and then waits for a reply; (d) SGSN receives a SCCP Connection Confirmation message from RNC, which indicates the success of the shared lu signaling connection establishment for this service.

With respect to claim 26, the prior art of record fails to disclose singly or in combination to render obvious that the method includes the following steps: (a) after receiving a SCCP Connection Request message from SGSN, RNC separates the RANAP message included in the data fields and saves the lu signaling connection ID allocated by SGSN for this service; and allocates the identifier of the signaling connection in RNC and constructs a SCCP Connection Confirmation message and a MBMS RAB Assignment Response message; (b) RNC sends a SCCP Connection Confirmation message to SGSN; (c) RNC sends a MBMS RAB Assignment Response message to SGSN via the shared lu connection established, if the MBMS RAB Assignment Response message is included in the data field of the SCCP Connection Confirmation message.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Lescuyer (U.S. Pub. No.: 2004/0147262 A1).

b) Choi (U.S. 7, 400,593 B2).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Eng, George** can be reached @ (571) 272-7495. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Kamran Afshar/**

**Primary Examiner, Art Unit 2617**